

Notice of Allowability

Application No.

10/674,751

Examiner

Gay Ann Spahn

Applicant(s)

FRITZ, TODD D.

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed on 12/1/05, 1/4/06 & 7/17/06.
2. ☒ The allowed claim(s) is/are 4-11.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Richard W. Hoffman on October 2, 2006.

The application has been amended as follows:

IN THE DRAWINGS:

The following changes to the drawings have been approved by the examiner and agreed upon by applicant:

In Fig. 4 of the Replacement Sheet filed on 17 July 2006, the left-hand corner of the peeled back second membrane (11) will be labeled with a lead line leading therefrom to reference character "18a" as discussed on line 11 of paragraph no. [0021] as amended in the Amendment filed on 17 July 2006 and reference character "16a" will be changed to --H-- to represent the handle of the roller for applying the liquid adhesive.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

In addition, the drawings filed on 17 July 2006 must have the informalities indicated on the attached "Notice of Draftsperson's Patent Drawing Review," (i.e., PTO-948) corrected. In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

IN THE SPECIFICATION:

The following changes to the specification have been approved by the examiner and agreed upon by applicant:

Replace paragraph no. [0017] on page 3 of the amendment filed on 17 July 2006, with the following:

[0017] Referring now more particularly to the accompanying drawings, it should be understood that the roofing system, generally designated [[R-S]] RS, and secured on roof deck D is comprised of a series of membranes, generally designated M, which are factory welded along their lapped edges to form the multiple membrane sheet, generally designated S. In Figures 1- 4, an adjoining pair of such membranes are numbered generally 10 and 11.

Replace paragraph no. [0021] on pages 4-5 of the amendment filed on 17 July 2006, with the following:

[0021] Once the fastener members 13 are secured in position with a suitable rotary power tool, a roller applicator or roller brush, generally designated B,

Art Unit: 3635

having a handle [[16a]] H, may be used to apply a fast-drying liquid adhesive to the surface of the fastening projection or tab 10a, defined by the welded edge, 2b, forwardly and across the fastening projection 10a to provide a coating 17 (Figure 3) completely covering both the fastening projection [[10]] 10a along with the fastener system F comprising the fastener screws or members 13 with heads 13a and the fastener plates 14, and filling the depressed wells or cavities W in the membrane 10 along or around the fastener plates 14 shown in Figure 3. The completely sealing coating 17 also is applied to the free edge 10c of the fastening projection 10a and to the deck member 15 forwardly of the free edge 10c for a predetermined distance 17a, i.e. six inches (6"). It is preferably applied as well as schematically shown at 18a in Figure 4, to the underside of the membrane 11 from weld welded edge 12b forwardly for a distance so as to ultimately mate with the portion of the coating on the fastening projection 10a and the coating portion which extends for the predetermined distance 17a of the coating 17 which is provided on the deck member 15. Because the membranes 10 and 11 are sufficiently flexible, the membrane 11 folds downwardly as at 11a to follow the free edge 10c and the liquid adhesive fills the space between them as at 17b. Finally, as Figure 3 indicates, the adhesive coating 17~~[[17a]]~~ feathers out, as at 17c, on the deck member 15.

Replace paragraph no. [0023] on page 8 of the original specification, with the following:

[0023] Figures 1-4 particularly disclose the method of construction of the roof system and the resulting product. Each overall sheet S is comprised of a number of adjacent membranes 10 and 11, each of which has a fastening projection 10a formed by overlapping an edge portion of each membrane at the joint or seam. The sheet S is applied in the manner illustrated in Figure 4, with each of the fastening projections 10a successively secured in position by fasteners 13 and sealed by adhesive bonding as at 17, 17b, and 17a until the end edge of the opposite end of the sheet S shown in Figure 4 is laid down and secured. The sheet is supplied to the site in a roll which, after the first edge is fully unwound and peeled back to expose each fastener tab 10a. Tautening "Grip-pull" devices of a conventional nature are used in the usual manner to remove wrinkles as the tabs 10a are progressively fastened and to keep each membrane taut as it is brought down to the deck to unite the adhesive on the underside of membrane 11 with the adhesive on fastening projection or tab or ledge 10a and over fasteners 13 and plates [[15]] 14. If an edge of a sheet S is to be joined to the edge of a membrane, such as a parapet membrane, for example, it may be so joined in any acceptable manner on the site by the roofer, such as by hot-air welding of the overlapped edges with mobile implements, which are well known in the art.

IN THE CLAIMS:

The following changes to the claims have been approved by the examiner and agreed upon by applicant:

Claim 1-3 are canceled.

Please amend claims 4, 5, and 7-10, as follows:

4. (Currently Amended) A method of securing a single ply membrane roofing system to a roof deck~~[[;]], wherein~~ said roofing system ~~comprising~~ includes a first membrane with a longitudinally extending first ~~member~~ membrane free edge to be secured to said roof deck by transversely spaced fasteners comprising fastener members extending through fastener plates having surrounding fastener plate edge face surfaces, said roofing system having a second membrane with a second membrane edge portion overlapping said first membrane free edge and bonded to said first membrane via a continuous weld bond along the edge of said second membrane such that said first membrane free edge projects forwardly from said weld bond to define a first membrane fastening projection extending forwardly from said first membrane free edge under said second membrane, the method comprising the steps of:

a. with said roofing system applied to said roof deck and while maintaining said second membrane in a peeled back position from said weld bond and said first membrane fastening projection, placing said fastener plates and said fastener members at spaced positions into said roof deck to mechanically secure said first membrane fastening projection ~~of said first membrane~~ to said roof deck;

b. with said second membrane in said peeled back position, applying a liquid adhesive over said first membrane ~~fastener~~ fastening projection and over and around said fastener plates and said fastener members from said weld bond forwardly to provide a continuous adhesive coating on said first membrane fastening projection and

Art Unit: 3635

over said fastener members and said fastener plates and around said fastener plate edge face surfaces; and

c. lowering said second membrane to cover and adhere to said first membrane fastening projection and said fasteners and provide a substantially continuous monolithic bond comprised of said weld bond and said adhesive coating.

5. (Currently Amended) The method of claim 4 wherein said adhesive coating flexibly extends down said first membrane free edge ~~of said first membrane~~ to the level of said roof deck between said first membrane free edge and the underside of said second membrane.

7. (Currently Amended) A method of constructing a single ply membrane roofing system applied to a roof deck~~[[:]]~~, wherein said roofing system ~~comprising~~ includes a first membrane with a longitudinally extending first membrane free edge to be secured to said roof deck by transversely spaced fastener systems comprising fastener members extending through fastener plates having fastener plate edge face surfaces, said roofing system having a second membrane with a second membrane free edge rearwardly overlapping said first membrane free edge and a hot air or dielectric weld bonded to said first membrane free edge via a continuous weld bond along said second membrane free edge such that said first membrane free edge projects forwardly from said weld bond to define a first membrane fastening projection, extending forwardly from said first membrane free edge, which is bordered by a first membrane fastening projection generally vertical marginal edge face surface, the method comprising the steps of:

Art Unit: 3635

a. with said roofing system applied to said roof deck, maintaining said second membrane in a peeled back position from said weld bond and said first membrane fastening projection and applying said fastener members and said fastener plates at transversely spaced positions to mechanically secure said first membrane fastening projection ~~of said first membrane~~ to said roof deck;

b. with said second membrane in said peeled back position, applying a fast drying liquid adhesive over said first membrane fastening projection, ~~[[and]]~~ said fastener plates and said fastener members, and around said fastener plate edge face surface, and to extend down said first membrane fastening projection marginal edge face surface ~~of said first membrane fastening projection~~ and onto only a restricted portion of said roof deck forwardly adjacent said first membrane to provide a continuous first adhesive coating on said first membrane fastening projection, said fastener plates, said fastener members, and a portion of said roof deck forwardly adjacent to said first membrane fastening projection, while also applying a second adhesive coating to the underside of said second membrane to an extent to generally cover said first adhesive coating applied to said first membrane fastening projection, said fastener plates, and said fastener members, and said roof deck; and

c. lowering said second membrane to cover and join said second adhesive coating to said first adhesive coating on said first membrane fastening projection, said fastener plates and said fastener members, and to fold down along said first membrane fastening projection marginal edge face surface to capture liquid adhesive between said first membrane fastening projection marginal ~~vertical~~ edge face surface and said folded

Art Unit: 3635

down portion of said second membrane, while also adhering to a portion of said roof deck ~~portion~~.

8. (Currently Amended) The method of claim 7 wherein said first membrane fastening projection has cavities around said fastener plate edge face surface which are filled with said first ~~liquid~~ adhesive coating.

9. (Currently Amended) A method of constructing a single ply membrane roofing system applied to a roof deck~~[[;]]~~, wherein said roofing system ~~comprising~~ includes a first membrane with a longitudinally extending first membrane free edge to be secured to said roof deck by fasteners comprising fastener members extending through fastener plates having fastener plate edge face surfaces, said roofing system having a second membrane with a second membrane free edge rearwardly overlapping said first membrane free edge and weld bonded to said first membrane free edge via a continuous weld bond along said second membrane free edge such that said first membrane free edge projects forwardly from said weld bond under said second membrane free edge to define a ~~fastener~~ first membrane fastening projection extending forwardly from said first membrane free edge which is bordered by a ~~fastener~~ first membrane fastening projection generally vertical marginal edge face surface, the method comprising the steps of:

a. with said roofing system applied to said roof deck, maintaining said second membrane in a peeled back position from said weld bond and said ~~fastener~~ first membrane fastening projection and applying said fastener members and said fastener

Art Unit: 3635

plates to said roof deck to mechanically secure said fastener first membrane fastening projection of said first membrane to said roof deck;

b. with said second membrane in said peeled back position, applying a fast drying liquid adhesive over said fastener plates and said fastener members, and around said fastener plate edge face surfaces, and to extend down said first membrane fastening projection marginal substantially-vertical edge face surface of said first membrane fastening projection to provide a continuous first adhesive coating on said fastener first membrane fastening projection, said fastener plates and said fastener members; and

c. lowering said second membrane to cover and adhere to said first adhesive coating on said first membrane fastener fastening projection, said fastener plates and said fastener members, and folding said second membrane down along said first membrane fastening projection marginal substantially-vertical edge face surface to capture said first adhesive coating between said first membrane fastening projection marginal substantially-vertical edge face surface and said folded down portion of said second membrane.

10. (Currently Amended) A method for constructing a single ply membrane roofing system applied to a roof deck[[:]], wherein said roofing system comprising includes a series of first membranes with longitudinally extending first membrane free edges to be secured to said roof deck by fasteners comprising fastener members extending through fastener plates having fastener plate generally vertical edge face surfaces, said roofing system also having also a series of second membranes with

Art Unit: 3635

second membrane free edges rearwardly overlapping said first membrane free edges and weld bonded to said first membrane free edges via continuous weld bonds along said second membrane free edges such that said first membrane free edges project forwardly from said weld bonds under said second membrane free edges to define first membrane ~~fastener~~ fastening projections extending forwardly under said second membrane free edges, said first membrane fastening projections being bordered by fastener first membrane fastening projection generally vertical marginal edge face surfaces, the method comprising the steps of:

a. with said roofing system applied to said roof deck, maintaining one of said second membrane free edges in a peeled back position from one of said weld bonds and one of said first membrane ~~fastener~~ fastening projections and applying one of said fastener members and one of said fastener plates to said one of said ~~fastener~~ first membrane fastening projections and said roof deck to mechanically secure said ~~fastener~~ first membrane fastening projection of said one of said first membranes to said roof deck;

b. with said one of said second membranes in said peeled back position applying a fast drying liquid adhesive over said fastener plate and said fastener member, and along said ~~generally vertical~~ fastener plate edge face surface, and to extend down said first membrane fastening projection marginal ~~substantially vertical~~ edge face surface of said one of said first membrane fastening projections to provide a first adhesive coating on said one of said ~~fastener~~ first membrane fastening projections, said fastener plate and said fastener member from said one of said weld bonds forwardly; and

c. lowering said one of said second membranes in said peeled back position to cover and adhere to said first adhesive coating on said one of said first membrane fastener fastening projections, said one of said fastener plates and said one of said fastener members, and folding said one of said second membranes down along said one of said first membrane fastening projections marginal ~~substantially vertical~~ edge face surfaces to provide a folded down portion and capture said first adhesive coating between said one of said first membrane fastening projection marginal ~~substantially vertical~~ edge face surfaces and said folded down portion of said one of said second membranes.

11. (Currently Amended) The method of claim 10 wherein said ~~liquid~~ first adhesive coating is applied to said roof deck for a restricted distance immediately adjacent said one of said first membrane fastening projection ~~vertical~~ marginal edge face surfaces and short of the longitudinal length of said one of said second membranes to allow a second membrane tautening process.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 6,857,243 to Bloomfield discloses an adhesive surface (28) with a removable strip (38) which is laid on top of fasteners (34).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gay Ann Spahn whose telephone number is (571)-272-7731. The examiner can normally be reached on Monday through Thursday, 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Naoko N. Slack can be reached on (571)-272-6848. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

^{GAS}
Gay Ann Spahn, Patent Examiner
September 29, 2006

Robert Canfield
Primary Examiner

